

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1-15. (Canceled)

16-27. (Canceled)

28-35. (Canceled)

36-40. (Canceled)

41. (Currently Amended) A The method of claim 36 further comprising making a dental mill blank suitable for the oral environment comprising:

mixing a paste comprising a resin and a filler,

adding a fluoride releasing material to the paste,

shaping the paste into a desired configuration,

minimizing material discontinuities from the paste,

curing the paste into a blank, and

heating the blank to a temperature at or above the Tg of the resin for a time sufficient to relieve internal stresses in the blank, wherein the cured mill blank, when immersed in liquid nitrogen for about two minutes, does not explode and no cracks are observed upon visual inspection.

42-63. (Canceled)

64. (Original) A method of making a dental prosthetic comprising:

mixing a paste comprising a resin and a filler,
shaping the paste into a desired blank configuration,
minimizing material discontinuities from the paste,
curing the paste into a blank,
heating the blank to a temperature at or above the Tg of the resin for a time sufficient to
relieve internal stresses in the blank, and
carving the blank into a desired shape and morphology, wherein the blank is substantially
free of cracks and when immersed in liquid nitrogen for about two minutes, does not explode and
no cracks are observed upon visual inspection.

65. **(Original)** The method of claim 64 wherein the heating comprises heating the blank in an oven, and wherein the oven temperature is increased at a rate of no more than about 5°C per minute.

66. **(Original)** The method of claim 64 further comprising adding additional material to the carved blank.

67. **(Original)** The method of claim 64 further comprising attaching the carved blank to tooth or bone structure.

68. **(Original)** The method of claim 64 further comprising:
manually changing the morphology of the carved blank, and
finishing the outer surface of the carved blank.

69. **(Original)** The method of claim 64 further comprising attaching a handle to the cured paste after curing and before carving, wherein the carving is performed by a milling machine.

70. **(Original)** The method of claim 64 wherein the carving is performed by a hand-held instrument.

71-72. **(Canceled)**

73. **(New)** The method of claim 64 further comprising adding a fluoride releasing material to the paste.

74. **(New)** The method of claim 64 wherein the resin is made from a material comprising a free radically curable monomer, oligomer, or polymer.

75. **(New)** The method of claim 74 wherein the material is selected from the group consisting of 2,2-bis[4-(2-hydroxy-3-methacryloyloxypropoxy)phenyl]propane (bisGMA), triethyleneglycol dimethacrylate (TEGDMA), 2,2-bis[4-(2-methacryloyloxyethoxy)-phenyl] propane (bisEMA), 2-hydroxy ethyl methacrylate (HEMA), urethane dimethacrylate (UDMA), and any combinations thereof.

76. **(New)** The method of claim 64 wherein the resin is made from a material comprising a cationically curable monomer, oligomer, or polymer.

77. **(New)** The method of claim 76 wherein the material is selected from the group consisting of diglycidyl ether of bisphenol A, 3,4-epoxycyclohexylmethyl-3-4-epoxy cyclohexene carboxylate, bisphenol F epoxides, and polytetrahydrofuran.

78. **(New)** The method of claim 64 wherein the resin is made from a material comprising a free radically curable monomer, oligomer, or polymer and a cationically curable monomer, oligomer, or polymer.

79. (New) The method of claim 64 wherein the resin is made from a material comprising a monomer, oligomer, or polymer comprising both a free radically curable functionality and a cationically curable functionality.

80. (New) The method of claim 64 wherein the filler is selected from the group consisting of barium glass, quartz, and zirconia-silica.

81. (New) The method of claim 64 wherein the filler is derived from a sol-gel process.

82. (New) The method of claim 64 wherein the blank is capable of being further hardened by an additional curing process.

83. (New) The method of claim 64 wherein shaping the paste is performed using a mold, the method further comprising:

trimming excess paste material from the mold, and
removing the cured paste from the mold.

84. (New) The method of claim 64 wherein curing comprises a system selected from the group consisting of heat, light, microwave, e-beam, and chemical cure.

85. (New) The method of claim 64 wherein the filler is at least about 50% by weight of the total weight of the mill blank.

86. (New) The method of claim 64 wherein the filler is at least about 65% by weight of the total weight of the mill blank.

Amendment and Response

Page 7 of 12

Serial No.: 10/027,278

Confirmation No.: 4144

Filed: 21 December 2001

For: DENTAL MILL BLANKS

87. (New) The method of claim 64 wherein the filler is at least about 80% by weight of the total weight of the mill blank.